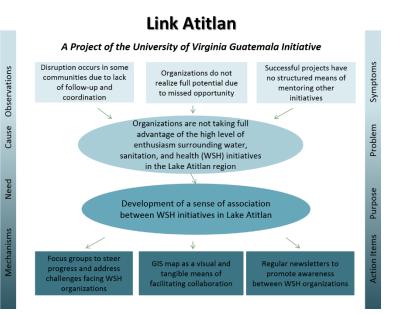
Proposed Objectives

In an initial trip to Lake Atitlán, Guatemala, I worked with a team through the University of Virginia Guatemala Initiative (UVAGI) to conduct a survey of water infrastructure in the lake region. Our team found that many non-governmental organizations (NGOs) working in the sphere of water and sanitation suffered from a lack of

communication with one another, resulting in overlapping projects, inadequate follow-up, and strained resources. The proposed objective of the current project, as funded by the Laura W. Bush Traveling Fellowship, was to complete a geographic information system (GIS) map of water and sanitation initiatives in the lake region. While developing the map, our team worked alongside NGOs to solicit feedback and to create a geo-based health alliance of organizations that work on water and sanitation projects. By encouraging collaboration and effective communication, the long-term vision of this project is increased access to potable water in the Lake Atitlán region.



This current project, termed the LinkAtitlán project, addresses the symptoms depicted in the above info-graphic through a three-fold approach that combines a GIS map with in-person networking.

Rationale and Project Summary

In Guatemala, 40% of the rural poor lack a household water connection, which limits access to potable water. Consumption of contaminated water causes gastrointestinal disease that can inhibit childhood cognitive development and pose barriers sustainable development. Through the University of Virginia Guatemala Initiative (UVAGI), our preliminary survey of water infrastructure indicated a lack of communication between organizations working in the water and health sectors, resulting in project duplication, inadequate follow-up, and strained resources. To promote increased communication, we designed LinkAtitlán, an online network to consolidate project information and provide an interactive collaboration tool for organizations. In the initial pilot of LinkAtitlán, funded by the Laura W. Bush Traveling Fellowship, I, alongside other members of the UVAGI, met with community mayors and nine organizations who viewed improving project visibility and collaboration as critical for progress in the Atitlán basin. With feedback from organizations, we will create another iteration of the LinkAtitlán tool to better facilitate information sharing and collaboration among public and private water and health initiatives in the Lake Atitlán basin.

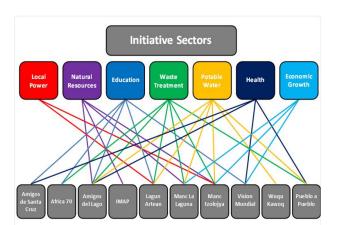
¹ Inter-American Development Bank, Office of Evaluation and Oversight. (2007). *Country program evaluation: Guatemala*. Retrieved from website: http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=2054183
² Petri, W.A., Miller, M., Binder, H.J., Levine, M.M., Dillingham, R., & Guerrant, R.L. (2008). Enteric infections, diarrhea, and their impact on function and development. *Journal of Clinical Investigation, 118(4), 1277 – 1290*.

Methods

Phase I: Review of Initial Survey Findings

The findings of our initial water infrastructure survey were fundamental to the mission of LinkAtitlán. In our review of the previous survey's findings, we found:

- Non-governmental organizations (NGOs) tend to work across sectors: in one survey, 10 organizations worked across 7 sectors (e.g. the water, health, or education sectors). The graphic to the right depicts the variety of sectors in which the surveyed initiatives conducted their work.
- NGOs that install water filters use more than five different types of filters throughout the lake basin.
- All surveyed organizations spoke of the need for increased communication among lake-based initiatives.



The cross-sector work, variety of filters used, and expressed need for increased communication were the basis on which we began to brainstorm means of developing a basin-wide networking tool. Working across multiple sectors and the variety of water filters installed are not in themselves problematic; however, they create additional obstacles to effective communication that we felt could be mitigated through a networking tool.

Phase II: Prototype of LinkAtitlán

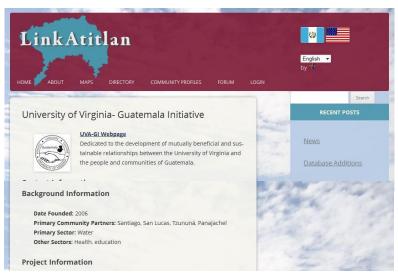
Noting the need for increased communication between organizations, we developed criteria for an effective networking tool. The design should 1) create a highly visible network of organizations, 2) be accessible and enjoyable to use (thereby promoting its own sustainability through organization buy-in), 3) promote active networking, as opposed to simply consolidating information passively.





Based on these three criteria, we proceeded with the design of LinkAtitlán, an online network that would categorize and depict project information through a geographic information system (GIS). Images of the initial

prototype of LinkAtitlán are displayed above. The GIS map is embedded in a website that depicts information about water and health initiatives both geographically and in individual organization profiles (an example profile is depicted below). The website is to be accompanied by discussion forums and periodic newsletters. Partner university students located in Guatemala will continue to coordinate the addition of new organizations to LinkAtitlán.



Phase III: Pilot of Initial Prototype

In the initial pilot of LinkAtitlán, I, alongside other UVAGI team members, met with nine partner organizations in the Lake Atitlán basin to solicit feedback on the tool. The majority of the surveyed organizations were currently featured on the website and map, and the others expressed interest in joining the LinkAtitlán initiative.

Outcomes

The interviewed organizations to whom we shared the prototype provided feedback in three primary areas:

- The tool should be used to promote not only online but also off-line communication in the form of conferences and focus committees.
- The tool should promote local, national, and international visibility of projects.
- LinkAtitlán should be maintained regularly by adding new organizations, releasing newsletters, and moderating discussion forums if the tool is to be highly interactive.

All surveyed organizations expressed the role that they felt the LinkAtitlán tool could play in increasing project effectiveness. The prototype feedback will continue to be incorporated into future iterations of the tool's design.

Future Development

The LinkAtitlán prototype will continued to be refined, particularly to incorporate the received feedback. We also project that future development will expand the tool's reach to a greater number of lake-based organizations, including both municipally-run projects and NGO-administered initiatives. Further, we plan to increase the interactivity of the website and to pursue collaborations with other communication-oriented initiatives that seek to increase collaboration among organizations in the Atitlán region.

Photo Appendix

Lake Atitlan, Guatemala—as viewed from Panajachel; this photo was taken in front of an under construction water treatment plant:



A sample of the organizations visited during the prototype pilot:



The Universit y of Virginia Guatem ala Initiative (UVAGI) team in action:

ıll 2012 Award Recipient